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ABSTRACT

This document outlines the processes and outcomes of a research project conducted to review work skills analysis tools (products and/or services) that profile required job skills and/or assess individuals' acquired skills. The document begins with a brief literature review and discussion of pertinent terminology. Presented next is a list of comparison criteria that was created by the project advisory committee and refined as the project progressed. The evaluation criteria are grouped into 10 categories: competencies (skills, knowledge, abilities) assessed by the product and/or service; producer, provider, or supplier; intended consumer; nature of the product or service; target "individual"; nature of the content; format(s) of the product or service; individual(s) involved in doing assessments; total time required; and total cost. Next, the criteria are applied to three types of tools: work skill analysis tools (Advance Skill Command, Portfolio Builder and Assessment System, SkillScape Skills Management, SkillView Power Builder Skill Inventory, and Work Keys); job skills profiling tools (Essential Skills Profile, Workplace Basic Skills Inventory); and individual assessment tools (Workplace Learning Systems, Workplace Success Skills). The report contains 25 references. Appended are the following: project advisory committee members list, sample skills lists; and initial list of work skills analysis tools.(MN)

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# Comparing Work Skills Analysis Tools

## PROJECT REPORT

Prepared for

BC Forestry Continuing Studies Network

Prepared by
Dr. Kathryn Barker

March 1998

CE037226



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# Comparing Work Skills Analysis Tools

## Project Report

**BC Forestry Continuing Studies Network**

**March 1998**

*prepared for:* National Literacy Secretariat of Human Resources Development Canada

*prepared by:* FuturEd (Dr. Kathryn Barker, President); http://www.futured.com


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## Executive Summary

This research report outlines the processes and outcomes of a project to review work skills analysis tools – products and/or services that profile required job skills and/or assess individual's acquired skills. Various consumers – training agencies, unions, employers, policy makers, even individuals – use these tools to conduct skills gap analyses that help target training, recruitment, or career planning. A large number and variety of these tools exist, and the purpose of this project has been to help consumers make an informed decision when choosing from among them.

The report begins with a brief literature review and a discussion of the terminology used. It then presents the criteria developed by the participants in the study, and applies those criteria to nine tools. No judgement is implied by this review of tools, and information is presented as it was supplied by the providers/producers of those tools. The outcome of the review process is a number of conclusions and observations, including the following:

- It is relatively easy to locate a large number of products and services related to skills assessments, and it is relatively easy to reduce this number by simply asking for more information.
- It is difficult to make a choice between what appear to be similar products and services because of different product/service descriptions, pricing structures, skills lists and levels, and different labels and terminology used for the same concepts.
- Trends in work skills analysis tools appear to be towards the complex, individualized, computer-managed systems.
- Before a consumer attempts to locate and differentiate between work skills analysis tools, it is necessary to be clear about organizational needs and resources.
- A consumer's guide to choosing between tools can be used as new products and services become available, and it can also be used by producers and developers as they design and market new products.

## Project Overview

The purpose of this project was to determine a means by which to make an informed choice between those commercial products and services (P/S) that:

1. profile the skills or competency required by jobs;
2. assess the skills or competency levels acquired by individuals; and
3. conduct a gap analysis between required and acquired competencies.

Consumer's of training and adjustment services, e.g., Forestry Continuing Studies Network in British Columbia and Forest Renewal BC, have a variety of choices when it comes to deciding between products / services that enable skills gap analysis by comparing job skills / knowledge requirements to an individual's acquired skills and knowledge. These products / services are typically used to determine and direct training efforts - industry-wide and / or for individuals. There may be additional uses, e.g., in PLAR (Prior Learning Assessment and Recognition) and in the labour exchange function that matches individuals to positions available. SkillScape Skills Management and the ACCC Work Keys are two examples of job analysis and skill assessment tools, and there are many more. Each has advantages and disadvantages from the consumers point of view. The problem that this study addresses is the difficulty in making informed choices between products and services.

This project, conducted between September 1997 and March 1998 was:

- hosted by the BC Forestry Continuing Studies Network[1];
- funded by the National Literacy Secretariat of Human Resources Development Canada;
- assisted by an Advisory Committee established by the BCFCS Network (Appendix A);
- conducted by FuturEd.[2]

[1] information is available at http://www.cariboo.bc.ca/bcfcsn/local.html

[2] Information is available at http://www.futured.com/

The objectives of the project were to:

1. determine the concepts that are important to consumer's when choosing between products and services (e.g., price, availability, effectiveness, efficiency);
2. locate as many relevant P/S as possible;
3. profile the existing P/S against the consumer criteria;
4. produce and distribute a research report; and
5. produce and distribute a consumer's guide to this type of P/S.

This document is the research report, and it encompasses the first three objectives. The Consumer's Guide is appended; however, it is intended to be a stand-alone document.

The project included the following steps:

1. scan of skills assessment products and services to identify potential tools
2. creation of criteria for comparison
3. selection of probable tools and subsequent information gathering
4. identification (short-list) of tools that accomplish all three steps (job skills profile, individual skills assessments, and skills gap analysis)
5. serious efforts to gather all the relevant information about each short-listed tool.[3]

In following these steps, a number of issues surfaced, for example:

- there is a veritable feast of products and services available via the Internet and via commercial catalogues;
- it is not easy to tell what a product or service does by its name or labels;
- it is very difficult to get comparable information about products and services;
- terminology and labels for the same concepts vary extensively, and conversely, the same words can be used to mean different things.

To resolve these procedural problems, FuturEd established a policy – with the average "consumer" in mind – of making one request for general information, one follow-up contact for more specific information, and a final contact – if necessary – for clarification. As a rule of thumb, if that policy resulted in inadequate information for comparison purposes, the researcher concluded that a customer would likely look to other products or services.

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The source of information, then, was the provider of the product/service directly and/or indirectly. It is recognized that this information is subjective marketing information. Potential customers should contact references to inquire about, e.g.,

- References and objectivity of endorsers
- Reputation of the P/S among users
- Sales versus actual usage
- Intended users and/or actual users
- Usability of the final report(s)

## Background Information for Related Literature

A review of the literature in the field of work skills assessment revealed the following background information on "the problem" and developments in "solutions."

The concept of developing and using tools to assess the required job skills and the acquired skills of individuals is a result of concerns about diminishing North American workforce competitiveness in the context of the global economy. In the United States, this concern resulted in a number of employability skills lists, e.g., the SCANS list found in Appendix B, the establishment of the National Skills Standard Board, and other initiatives to target and improve the work skills of America's workforce. At approximately the same time, in Canada, the concern for workforce training and skills upgrading resulted in the establishment of the Canadian Labour Force Development Board,[4] the Essential Skills Research Project,[5] and numerous provincial education/training initiatives. Concerns about basic skills deficits were reinforced by statistics from the International Adult Literacy Survey conducted by Statistics Canada. In short, there has been growing awareness of a problem created by increasing and changing skill demands in the workplace.

To respond to the need for work skills upgrading, a large number and variety of tools have been developed in both Canada and the US -- tools that can be used to profile job skills, assess individual's skill levels, and conduct gap analyses to target training. Early studies revealed that the appropriateness of various assessment procedures and effective student/worker evaluation were serious issues to be addressed.[6] A 1995 ERIC document[7] urged that, when selecting an approach for assessing employability skills, the following criteria should be kept in mind.

- The validity of a work skills assessment rests on job analysis: a clear and validated relationship should exist between the assessment and the skills required for one or more jobs. This relationship should be based on a systematic analysis of the skills and skill

  levels required for the job(s) in question, and not just on observation. The assessment

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4 Information available at http://www.clfdb.ca/

5 Information available at http://www.globalx.net/hrd

6 See Skill Standards: Job Analysis Profiles are Just the Beginning (ERIC Trends and Issues Alert) at http://coe.ohio-state.edu/cete/ericacve/docs/skillstd.htm

7 See *Assessing Employability Skills. ERIC Digest.* at http://educsrvb.educ.cua.edu/db/edo/ED391109.htm

should reflect the nature of the skill required, and the score attained should accurately reflect the individual's level of that skill.

- The skill assessed should be teachable. The essence of employability skills is preparation for the job, so the focus should be on skills that can be taught. Assessment of "intrinsic abilities" may be valuable for predicting future job performance or for career planning, but they are not teachable.
- Each assessment should be evaluated in the context of its purpose. If employers use the scores to make personnel decisions, the assessment must meet strict reliability and validity standards, sufficient to provide a sound legal defense. This requires rigorous attention to the psychometric quality of the instruments, to standardization of administration, and to accuracy of scoring. If, however, the purpose is to guide instruction, these criteria can be relaxed.

The primary objective of work skills analysis tools should be to provide meaningful feedback with appropriate content and impact. Acumen International, which markets a skills assessment tool, provide the following advice for selecting assessment solutions.[8]

1. Find out what instruments are available.
2. Collect a complete set of materials.
3. Examine what is measured and see if it aligns with your intended usage.
4. Determine if the feedback scales are reliable.
5. Determine if the instrument measures what it claims to measure.
6. Evaluate how feedback is displayed and how the breakout of rater responses is handled.
7. Look for how the interpretive scores and narrative feedback are facilitated.
8. Determine the utility of developmental direction.

The purpose of this project, then, has been to build on this wisdom to create a more detailed, consumer-oriented approach to choosing from among the variety of work skills analysis tools available.



[8] See *How to Select an Assessment Solution* at http://www.acumen.com/3-6.html

## Concepts and Terminology

In the context of "work skills analysis tools," the term **skills** is used here to mean competencies acquired through formal and/or non-formal learning opportunities. The term is also used as a shorthand version of SKA's -- skills, knowledge, and attitudes -- common to the skills assessment literature. In the context of this study, the skills being identified and assessed predominantly include those considered to be either entry-level **employability skills** and/or generic / transferable employability skills. Reference is made to the SCANS list of employability skills and the Conference Board Employability Skills Profile as the basis of some tools. Those employability skills lists, and others, are found in Appendix A. In brief, they include such basic skills as reading and writing, speaking and listening, math skills, thinking skills and interpersonal, workplace skills. The purpose of these work skills analysis tools is to transform these generic skills lists into job-specific skills, employer-specific skills and/or position-specific skills through the process of job profiling. The tools under study do not, however, perform the reverse function, i.e., they do not identify specific occupational skills and create an inventory of required occupational skills. This profiling is done for the purpose of, for example, enhancing job descriptions, assessing job applicants, creating career development plans, and identifying the training needed by the workforce.

In the context of "gap analysis tools," the terms **products and services** are used to illustrate the involvement of the producer/supplier over time. Gap analysis products include stand-alone methods, such as workbooks and on-line tools, that can be purchased and used by customers with or without help from the producer. Gap analysis services are those that require the customer to stand back and let the producer/provider do the work. The difference is pointed out simply because the terms can cause confusion in terms of customer expectations.

Finally, in the context of this project, the term **consumer's guide** refers to a tool for potential customers to use to make informed choices. It is not a consumer's report, i.e., one which ranks or rates products and/or services for the consumer. A consumer's guide is intended to be comprehensive and non-judgmental. This study, first, created a form of consumers guide or consumer-based criteria for gathering information about work skills analysis tools, and then used those criteria to review nine particular tools. No judgement of the quality of those nine tools is either stated or implied.

## Consumer-based Comparison Criteria

The following is a list of criteria for reviewing, and possibly comparing, tools that assess required and acquired work-related skills. The list was created by the Advisory Committee and refined by FuturEd as the project unfolded. This, then, is the basic information that a consumer would want to gather - where possible - before making a choice between various products and/or services.

1. **What competencies – skills, knowledge and abilities -- are assessed by this product or service?**

   1.1. What is the nature of the skills?

   - How are they labeled -- e.g., *basic, employability, personal qualities*?
   - Is the skills lists generally recognized as is, for example, HRDC's Job Profiling Essential Skills?

   1.2. If competencies are job-specific or work-specific, are they..

   - Generic and/or technical?
   - Entry-level and/or advanced?

   1.3. What levels are assessed?

   - What are the levels of detail – e.g., very fine or very broad?
   - What is the basis for the levels – e.g., school grade levels?

   1.4. What is the nature of the assessment?

   - Is it a description or a measurement of skills?
   - Is the assessment based on performance?

2. **Who is the producer, provider or supplier?**

   2.1. How do you contact the head office?

   2.2. What is the organizational history? Does it give you a sense of confidence?

   2.3. How reliable and credible is the product/service?

   - Is there a body of research or supporting evidence?
   - Can you contact references who have bought and/or used the product/service?
   - Does it come with a guarantee or warranty?

2.4 What information and consumer service is available, and how is it accessed?

- Is there any "local" access, in your country or province?
- Is information easily available to you?
- Are demonstration materials available? What are the costs and conditions?
- Do you have a sense of the quality of customer service?
- Is technical support available -- e.g., 1-800 number?

**3. Who is the intended consumer?**

3.1. Is the product/service aimed at a very narrow or very broad audience – e.g., one broad industry like manufacturing, or a particular type of industry like the information technology industry?

3.2. What assumptions are made about the target consumer, e.g., organizational needs, funding sources?

**4. What is the nature of the product or service?**

4.1. Is it a product you keep, a service to be contracted, or both?

4.2. How are you involved in using the product or service?

- What equipment and facilities are required?
- What personnel will be involved?
- What time will be required of your staff?

4.3. What are the end results of the process or service?

- How usable is the final report to you? What is the degree of technicality?
- Are the results individualized or aggregated?
- Who owns the information gathered?
- Are results confidential? What is the nature of the confidentiality?

4.4. Are there linkages to existing or needed services such as:

- Instructional and training plans or materials?
- Your hiring or recruiting methods?
- Your existing management information system?
- Your job classification systems?
- Industry occupational skill standards?
- Individual competency profiles or portfolios?

4.5. Is the product or service "user-friendly"?

- What type of terminology is used -- e.g., generally understood or "unique" to the producer?
- What amount and type of information is required in advance in order to use the product or service?

4.6. Is it flexible and adaptable?

- Is the format flexible – e.g., can it be trimmed or changed at all?
- Is it adaptable to various industries or sectors?
- Can it be adapted to different sizes of organization -- e.g., small enterprise to multinational firm?

**5. Who is the target "individual"?**

5.1. Is the product or service for a general or a specific population – e.g., within a type of industry or with a particular educational level?

5.2. Is it accessible to specific populations?

- What languages is it available in -- e.g., both French and English?
- Is it barrier- and bias-free for persons with disabilities, women, visible minorities, and First Nations?

5.3. What is the difficulty level?

- Can it be used by persons for whom English/French is not a first language?
- Can it be used by persons with low literacy levels?

5.4. Does it have appeal or application to different age groups -- e.g., youth, seniors?

**6. What is the nature of the content?**

6.1. Is it relevant to the Canadian and/or a localized cultural context?

6.2. Is it applicable to the Canadian labour market?

6.3. Is it "living"?

- Has it been updated and/or revised?
- How often?
- How recently?

**7. What is the format(s) of the product or service?**

7.1. What is the type of product/format for each step -- e.g.. pen and paper, computer software, on-line?

- Job skill profiling
- Individual skill assessment
- Skills gap analysis

7.2. What process is followed for each step?

- Is it individualized or conducted in groups?
- Is it simple or complex?
- Is it a self-reported assessment or is it by an outside assessor?
- Is it multiple choice or other?
- How is the information verified?

7.3. What equipment is needed for each step?

- What general equipment is needed -- e.g., computer hardware?
- What particular equipment or software is needed – e.g., Adobe or Java script?

**8. Who is involved in doing assessments?**

8.1. For each step, who is involved and what are the requisite qualifications?

- Job skills profiling
- Assessing individual's skills
- Skills gap analysis

8.2. What are the requirements of your staff?

- What is the nature and cost of training provided?
- What is the time and cost to your organization?

**9. What is the total time required?**

9.1. How much time is required for the completion of each step?

- How much time for each job profiled?
- How much time for each person assessed?
- How much time for the skills gap analysis?

9.2. How long is the turn-around time for final results?

9.3. What is the total time per person assessed?

**10. What is the total cost?**

10.1. Is there an initial fee and/or annual fees?

10.2. Are there licensing fees? Does this apply to multiple and/or single sites or users?

10.3. What is the cost for each step?

- What is the cost per job profiled?
- What is the cost per individual assessment?
- What is the cost for the gap analysis?

10.4 What is the total cost per individual assessed?

10.5 Are there economies of scale -- e.g., reduced cost with increasing numbers?

10.6 What are the associated consumer costs -- e.g., training, administration time, communications?

10.7 What are the customization costs?

These are the questions – at least, some of the questions -- that one should ask in order to make an informed choice between products and services that perform skills gap analyses. Again, it is recommended that consumers go beyond marketing materials to secondary sources of information, i.e., actual clients, purchasers and/or users of the products and services to verify that the product or service is likely to meet their needs.

## Reviewing Nine Tools: Applying the Criteria

What follows is an application of these review criteria to nine tools that (1) profile job skill requirements, and/or (2) assess individual's skill levels, and/or (3) provide a skills gap analysis. While those that encompass all three were the major focus of this study, others have been included to contribute to a skills gap analysis.

- *Work Skills Analysis Tools* (all three steps)
    1. Advance Skill Command (pg. 16)
    2. Portfolio Builder and Assessment System (pg. 19)
    3. SkillScape Skills Management (pg. 22)
    4. SkillView Power Builder Skill Inventory (pg. 25)
    5. Work Keys (pg. 28)
- *Job Skills Profiling Tools* (one step only)
    6. Essential Skills Profile (pg. 31)
    7. Workplace Basic Skills Inventory (pg. 34)
- *Individual Skills Assessment Tools* (one step only)
    8. Workplace Learning Systems (pg. 37)
    9. Workplace Success Skills (pg. 40)

The fact that a work skills analysis product or service is not included in this review does not in any way reflect on its quality. Quite simply, there wasn't enough readily-available information to review many products / services.

## 1. Advance Skill Command
## (Advance Educational Spectrums)

*Type of **service**:* Job Skills Profiling and Individual Skill Assessment Tool
*Date reviewed:* February 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br><br>• nature of the skills<br>• type of work skills<br>• levels assessed<br>• nature of assessment | • Basic employability skills, based on U.S. SCANS skill lists<br>• Does not assess technical skills<br>• There are quality indicators and performance measures for each SCAN skill. The assessments are criterion-referenced, that is that performance is compared to criteria for performance of that standard/application.<br>• Levels: The system comes with a template that identifies 5 levels of difficulty in each of the 37 SCANS skill areas.<br>• The client determines standards of proficiency in key SCANS skills and performance is measured against the definition of that standard. |
| 2. Producer/supplier<br><br>• head office<br>• organizational history<br>• credibility<br>• information/service available | • Advance Educational Spectrums<br>ONE AES WAY Route 2, Box 38,<br>Lake Park, MN, 56554-9520<br>  • Ph: 1-800-283-6611<br>  • Fax: (218) 532-3023<br>  • E-mail: info@advedspec.com<br>  • Website: http://www.advedspec.com<br>• Demonstration disk available.<br>• AES International , a Minnesota -based organization founded in 1991, provides tools for employers interested in hiring and developing employees with employability skills.<br>• References available from AES. |
| 3. Intended consumer<br><br>• user group<br>• underlying assumptions | • Applicable to any size organization and/or industry<br>• Job profile samples can be accessed through the company ,or clients can develop their own with the help of the service provider. Individuals may self-assess their skills against the job profiles and can determine if there is a training gap. |

Advance Skill Command (AES service) continued...

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| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ nature of customer involvement<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ This is a resident product that is a full job profiling and skill assessment resource tool.<br>♦ Customer buys and installs product for use by employees.<br>♦ Reports can be configured in several ways, providing the client with individual worker skill assessments, team profiles, organizational skills, training needs, etc. The report highlights the 37 SCANS skills and also focuses more in-depth on 6 skills the client identified as critical to a position.<br>♦ All reports are user-friendly, using non-technical language.<br>♦ Linkages: The system provides recommendations for skill development. It can be used for purposes of career planning, project team development, employer tracking, etc. |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ Target: the existing workforce, entry-level to advanced.<br>♦ Product is useful to any size or type of organization.<br>♦ Languages: English only |
| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ The skills assessed and the job profiles (those developed by client) can be adapted to the Canadian labour market.<br>♦ This is a living-tool that can be continually updated. |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ It is a computer-based application that involves two steps: the development of job profiles and the assessment of worker skills. The job profiling model engages a cross section of staff in the process.<br>♦ Equipment: Windows based system (Windows '95 or higher). |
| 8. People involved<br><br>♦ for each step<br>♦ qualifications<br>♦ time and cost<br>♦ client's staff<br>♦ training | ♦ The service provider sets up the system and trains clients in how to manage it..<br>♦ Site License (cost per employee)<br>  ♦ Training $1,000/day + expenses<br>  ♦ Consulting $120/hour + expenses<br>  ♦ Bound copy of profile results available for $150 |

Advance Skill Command (AES service) continued...

| | |
|---|---|
| 9. Time<br><br>◆ for each step<br>◆ turn-around time for results | ◆ Time varies depending on number of profiles being developed. The average time to develop a profile is typically 3 - 4 hours per job title. The data is analyzed by Advance and a profile is generated and returned to the client.<br>◆ Results are available immediately. |
| 10. Costs<br><br>◆ licensing fees<br>◆ initial or annual fees<br>◆ cost for each step<br>◆ cost per individual assessed<br>◆ economies of scale<br>◆ associated client costs<br>◆ customization costs | ◆ Client training varies from half a day for job profiling ($150 USD) to 2 days for the assessment training ($300 USD), to 1 day for the software training (15% of site license - $500 minimum). These prices are subject to change as the company is in the process of changing some costing. |

## 2. Portfolio Builder and Assessment System (PBAS)
## JMJ Group

*Type of **product/service**:* Individual Skills Profile And Skills Gap Analysis Tool
*Date reviewed:* March 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br>◆ nature of the skills<br>◆ type of work skills<br>◆ levels assessed<br>◆ nature of assessment | ◆ Customers select the skills to be included in the job profile from a list of database content options. Options include: Ontario Literacy Outcomes, Canadian Work Preferences, HRDC Essential Skills Data and National Occupational Standards & Red Seal Analysis. Examples of skills include: reading, writing, numeracy, speaking, listening, researching, problem solving, decision making, innovation & change, leadership, customer service.<br>◆ The software, downloaded from the Internet, uses a self-assessment process. Users provide "evidence" of their skills by attaching "Demonstrations".<br>◆ The portfolio is sent to an assessor to validate the skills if applicable. |
| 2. Producer/supplier<br>◆ head office<br>◆ organizational history<br>◆ credibility<br>◆ information/service available | ◆ JMJ Group – Metson Consulting Division<br>379 Bartholomew Dr. Newmarket, Ontario L3X 2E7<br>◆ Ph: 905-836-4679<br>◆ Fax: 905-836-8765<br>◆ Web: http://www.jmjgroup.com<br>◆ Canadian software developers with 10 years experience in the field of training & development<br>◆ 5 years experience in software development<br>◆ on-line demos available on website<br>◆ technical support available through 1-800-number or e-mail |
| 3. Intended consumer<br>◆ user group<br>◆ underlying assumptions | ◆ End users are clients of education/training centres, career counseling agencies or settlement service agencies<br>◆ Users must have a grade 5 reading level or higher to use the application |

PBAS (JMJ Group product) continued...

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|---|---|
| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ nature of customer involvement<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ The Portfolio Builder & Assessment System is a prior learning assessment software tool operating over the internet.<br>♦ Access is kept confidential through user ID numbers and passwords.<br>♦ Produces a Portfolio including an Individual Skills Profile, Gap Analysis and Action Plan based on a specific career goal.<br>♦ Features and functionality can be customized for each site (for a fee).<br>♦ ***1998 Release***: Links to training opportunities and assessment tools. |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ Individuals who want to identify job opportunities based on their transferable skills<br>♦ Foreign trained individuals who want to compare their experience to the Canadian job requirements<br>♦ Appeals to all ages<br>♦ Currently available in English only<br>♦ ***1998 Release:*** available in French |
| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ Specifically Canadian Content<br>♦ Uses the NOC (National Occupational Classification)<br>♦ National and Provincial occupational data<br>♦ Information is stored on a central file server providing quick and easy access to current data |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ Individuals create a "Portfolio" using the PBAS software on a personal computer with Windows 3.11 or higher and access to the Internet |
| 8. People involved<br><br>♦ for each step<br>♦ qualifications<br>♦ time and cost<br>♦ client's staff<br>♦ training | ♦ The individual creates their portfolio including demonstrations of the skills they have in their profile. The individual submits the portfolio electronically to an "assessor" to validate the skills in the profile.<br>♦ Each site determines who the assessor will be and the qualifications required. |

PBAS (JMJ Group product) continued...

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|---|---|
| 9. Time<br><br>♦ for each step<br>♦ turn-around time for results | ♦ The time varies based on the amount of work experience and volunteer work to be profiled. Times range between 3 - 12 hours (usually done 1- 1.5 hour blocks)<br>♦ Assessment results are provided immediately. |
| 10. Costs<br><br>♦ licensing fees<br>♦ initial or annual fees<br>♦ cost for each step<br>♦ cost per individual assessed<br>♦ economies of scale<br>♦ associated client costs<br>♦ customization costs | ♦ Annual site license fee of $2,500 (multiple site licenses available) PLUS a $25 per person user fee. (subject to change without notice)<br>♦ There is no fee or limit to the number of assessments done.<br>♦ Customization costs are calculated on a project by project basis. |

### 3. SkillScape Skills Management (SSMS)

*Type of **product/service**:* Job Skills Profiling, Individual Skill Assessment and Gap Analysis Tool

*Date reviewed:* February 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br><br>♦ nature of the skills<br>♦ type of work skills<br>♦ levels assessed<br>♦ nature of assessment | ♦ Employability, personal qualities and technical skills from a list of over 6,000.<br>♦ The skill database was developed by Skill Scape but can be supplemented by user-defined skills.<br>♦ Skills (entry level and advanced) are organized into a hierarchy to facilitate training plan development (list would include underlying skills that support higher level skills).<br>♦ Levels: No Skill, Conceptual, Experienced, Expert, Guru.<br>♦ Skills are described and attached to proficiency levels but proficiency is not validated (no objective testing in this system although SkillScape has a business partner who can integrate this function into SkillScape Competence Manager). |
| 2. Producer/supplier<br><br>♦ head office<br>♦ organizational history<br>♦ credibility<br>♦ information/service available | ♦ SkillScape Skills Management Services, Ltd.,<br>3318 Oak St., Suite 19, Victoria, B.C. Canada, V8X 1R1<br>♦ Ph: (250) 464-7525<br>♦ Fax: (250) 475-7511<br>♦ Email: info@skillscape.com<br>♦ Web: http://www.skillscape.com/corp<br>♦ Canadian software and service company, incorporated in 1996.<br>♦ Potential clients can access an on-line demonstration using the Internet.<br>♦ Technical support @ 1-888-2-MANAGE. There is also a help desk open from 6 am to 5 PM PST, Mon-Fri.<br>♦ References: PeopleSoft Inc., Nortel Inc. |

SkillsScape Skills Management (SSMS product/service) continued...

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|---|---|
| 3. Intended consumer<br><br>♦ user group<br>♦ underlying assumptions<br>♦ nature of involvement | ♦ Industry, labour, government with 100+ employees.<br>♦ This process / software assumes that knowledge capital of an organization is its most valuable asset. A system is required to track knowledge capital, to develop it, and to apply it in the most effective manner possible.<br>♦ The process of developing job profiles involves management working with SkillScape consultants, using the database of skills, to develop job profiles. This can also be performed without the help of SkillScape consultants. Employees then review their own skills against the profiles. Results from the personal skill assessments can be aggregated into an organizational picture of existing skills. Personal skill assessments are self-reported. |
| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ This is a resident product that is a full job profiling, skill assessment, career manager , education deployment and project resourcing tool.<br>♦ Final reports provide information regarding the exact number of people at each current and required skill level in an organization. They also flag potential skill shortages by creating a listing of skills in an organization ranked from weakest to strongest with proficiency levels listed. Reports provide a complete skill listing of an employee's personal skills profile including (1) current, planned and required skill levels and (2) skills required in a job. They provide a sourcing vehicle for finding workers with selected skills for project team development.<br>♦ All reports are easy to read, using non-technical language.<br>♦ The product rarely needs to be adapted due to the size of the skill database. Customization is available at a cost of $800 USD/day + expenses.<br>♦ Linkages: the system provides recommendations for skill development (refers to books, courses). It can be used for career planning, training plan development, succession planning. There are a series of templates that can be used to store and sort data (e.g. team skill profiles), organization-wide skill sets, etc). This allows for detailed tracking of employees for project and training planning purposes. |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ Target: new job entrants and existing workforce at entry level to advanced positions including professional.<br>♦ Product is useful to any size organization and/or industry.<br>♦ Languages: SkillScape Competence Manager is National Language Translatable. Spanish and French versions are currently being considered. |

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SkillsScape Skills Management (SSMS product/service) continued...

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| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ The skills assessed and the job profiles are relevant to any labour market as they are developed by the client using the database and reflect North American organizational and business context.<br>♦ This is a living tool that the client can continually update. |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ It is a computer-based application that involves several steps. The basic steps involve analyzing skill requirements for particular jobs, defining the skill level of each skill required in a job, and developing individual skill profiles.<br>♦ Equipment required: Oracle 7.3, Pearl 6.0 (can be obtained for free; Web Server Software (Oracle WebServer preferred); Workstation: InfoExplorer or Netscape browser software and access to an Intranet. If any of this software is missing, or if an Intranet is not present, SkillScape can host the software. |
| 8. People involved<br><br>♦ for each step<br>♦ qualifications<br>♦ time and cost<br>♦ client's staff<br>♦ training | ♦ The service provider sets up the system and trains clients in how to manage it. The skill assessment and job profiles remain with client but there is a potential of signing a service agreement to allow SkillScape to use the skills listed in the client's profiles.<br>♦ Consultants have a minimum of 8 years of practical experience implementing skill management processes.<br>♦ Client training varies from 4 hours for management to 2 days for systems administrators at a cost of $US 800/day. |
| 9. Time<br><br>♦ for each step<br>♦ turn-around time for results | ♦ Time needed to develop job profiles varies depending on the number of jobs and whether or not client has to adapt the skill database.<br>♦ Results are available immediately. |
| 10. Costs<br><br>♦ licensing fees<br>♦ initial or annual fees<br>♦ cost for each step<br>♦ cost per individual assessed<br>♦ economies of scale<br>♦ associated client costs<br>♦ customization costs | Licensed # of users / (USD)Fee licenses / Maintenance / Additional<br>1-500 / $20,000 / $3,000 / $35.00<br>501-1500 / 50,000 / 7,500 / 14.00<br>1501-5000 / 90,000 / 13,500 / 6.00<br>5001-10000 / 120,000 / 18,000 / 1.50<br>10000-100000 / 150,000 / 22,500 / 1.50<br><br>♦ Separate price list for clients who enter into a reciprocity agreement when they purchase the SkillScape Starter Skills Database to give their skill definitions for inclusion in SkillScape's database. |

## 4. Skill* View Power Builder Skill Inventory (SkillView Technologies)

*Type of **product**:* Job Skills Profiling and Individual Skills Assessment Tools
*Date reviewed:* February 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br>• nature of the skills<br>• type of work skills<br>• levels assessed<br>• nature of assessment | • The system profiles mainly technical skills. Out of a skills dictionary of 200 skills, 20 are employability. A company can also pre-define skills.<br>• Levels assessed are based on a scale of 1-9: No ability, conceptual, novice, developing, mostly functional, fully capable, expert. Scale is not linked to grade levels.<br>• The assessments are self-reported. |
| 2. Producer/supplier<br>• head office<br>• organizational history<br>• credibility<br>• information/service available | • SkillView Technologies,<br>95 Plaistow Rd. Plaistow, NH, 03865<br>◦ Ph: (603) 382-9882<br>◦ Fax: (603) 382-8883<br>◦ Web: http://www.skillview.com<br>• SkillView Technologies was founded in April 1994. Its flagship Skill*View product was brought to market in 1995.<br>• References: Federated Systems Group of Atlanta; Belk Department Stores, Charlotte, NC; Johnson & Johnson, Bank One, Armstrong and Sun Micro.<br>• Information available: Potential clients can access an extensive demonstration (6 disks that are installed on a 486 computer)<br>• Customer service: free phone service for the first 90 days |
| 3. Intended consumer<br>• user group<br>• underlying assumptions | • This product is specific to the information technology industry.<br>• The skills used are based on several years of research in the area of information technology human resources but are not based on any other skill definition system such as the American SCANS. |

SkillView Skill Inventory (Skillview product) continued...

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|---|---|
| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ nature of customer involvement<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ This is a resident product as well as a service. Consultants assist in setting up the system but once installed can be updated by client.<br>♦ Clients are involved in developing the job profiles. Using a computer-based application, clients develop profiles of the skills needed in various jobs. This is done using the Skill*View skill database as well as by adding skills defined by client. From there, individual worker skills are assessed using the job profile as a point of comparison. A gap analysis is provided which highlights the skills required to do a job and an assessed workers skill level in each discreet job related area.<br>♦ Final reports are non-technical: easy to read and use. They can be printed in many combinations (individual reports, gap analysis, company skill overview, skills by project, etc.)<br>♦ The system is user-friendly: "click and go."<br>♦ The program is adaptable. If a client chooses not to use the skill view database of skills, they can develop their own skill database.<br>♦ The product has site-specific labels for jobs, positions, departments, weighting of skills. |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ Target: entry-level to advanced in the IT industry. |
| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ The skill database consists of 200 + information technology skills as well as 20 employability skills. These skills are applicable in the Canadian IT labour market.<br>♦ Product is currently only available in English. |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ The entire process is a computer application. Interviews are held with staff to develop job profiles. Staff then insert their own skills profiles using the skills profiles of their job and evaluate their own skills.<br>♦ Sites need computers. It is a Windows based application. There is full on-line documentation and site-customization available. |

Skill View Skill Inventory (Skillview product) continued...

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|---|---|
| 8. People involved<br><br>• for each step<br>• qualifications<br>• time and cost<br>• client's staff<br>• training | • SkillView consultants assist in implementing the system if needed, and in training client staff in how to develop job profiles and work with skill database.<br>• Consultants have, on average, 20 years of experience in the industry.<br>• The cost of training is based on $1,800 USD/day + expenses. |
| 9. Time<br><br>• for each step<br>• turn-around time for results | • The process of developing job profiles varies depending on the company. If the client uses the existing skill database, the process takes approximately 30 minutes per profile. Development of the skill database can take up to 30 days, with a number of SkillView consultants assisting.<br>• Skill assessments can be done by individual workers on the computer and can take as little as 30 minutes.<br>• Results can be printed instantly. |
| 10. Costs<br><br>• licensing fees<br>• initial or annual fees<br>• cost for each step<br>• cost per individual assessed<br>• economies of scale<br>• associated client costs<br>• customization costs | • Licensing: $7,950 (for IT skill dictionary)<br>• $9,750 for single-station, stand-alone version: unlimited profiled employees.<br>• Upgrade to new releases is optional, fee is 35% of original license fee.<br>• Lan-WAN Client Server Versions: $22,750 up to 200 profiled employees. Unlimited profiled employees is $33,750<br>• Yearly updates $1,750 (optional)<br>• Customization costs: $1,800 /day + expenses |

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## 5. Work Keys System (ACT and ACCC)

*Type of **service**:* Job Profiling and Skill Assessment System
*Date reviewed:* February 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br><br>♦ nature of the skills<br>♦ type of work skills<br>♦ levels assessed<br>♦ nature of assessment | ♦ Eight employability skills: applied mathematics, applied technology, listening, locating information, observation, reading for information, teamwork, and writing skills.<br>♦ Levels: There are 4 or 5 levels, depending on the skill being measured. These are not connected to a school grade level.<br>♦ Skills are similar to Conference Board of Canada's Employability Skills Profile. |
| 2. Producer/supplier<br><br>♦ head office<br>♦ organizational history<br>♦ credibility<br>♦ information/service available | ♦ Commercial product developed by ACT: American College Testing, Inc.<br>♦ Distributed in Canada by Association of Canadian Community Colleges (ACCC). Each province has one or more service centres (e.g., community college) which provide consulting and other services for Work Keys. All have licensing agreement with ACCC.<br>♦ ACCC, 200-1223 Michael Street, N. Ottawa, ON, K1J 7T2<br>♦ Ph: (613) 746-2222<br>♦ Fax: (613) 746-6721<br>♦ E-mail: rwatson@accc.ca<br>♦ Web: http://www.accc.ca/eng/prog<br>♦ References: Proctor and Gamble<br>♦ There is no demonstration available; however, potential clients can access sample materials from service centres. |
| 3. Intended consumer<br><br>♦ user group<br>♦ underlying assumptions | ♦ Work Keys can be used in any size organization and for any sector. It is intended for those who are targeting training requirements.<br>♦ The service is provided on-site and there are no special equipment requirements. |

Work Keys (ACCC service) continued...

| | |
|---|---|
| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ nature of customer involvement<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ This is a service, and not a resident product. However, the client can be trained in how to facilitate the method.<br>♦ The process is user-friendly, as are the reports.<br>♦ Report results are aggregated. Individual employee results are given to worker but not to the employer.<br>♦ Chart Essay Reports provide general descriptive information on how groups of people scored on an assessment. This helps identify training needs. The Roster Report is a condensed format and lists an individual's assessment scores, demographic data and job data. Vocational Information Reports are compiled based on the examinee group's current job status and occupational interests. Individual reports detail examinee's skill level for each assessment, describe the tasks associated with the skills, and provide options for skill improvement. Local items reports provide a general summary of examinee's responses to questions provided by client (e.g., training taken, quality of training taken). |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ Target: individuals, in any industry, for whom basic, entry-level and employability skills are the issue; i.e., not for highly trained professionals.<br>♦ Services currently only available in English. |
| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ Work Keys is relevant to any labour market.<br>♦ Linkages: An instructional support component is available which provides materials for instructors, and curriculum developers to help facilitate the improvement of workplace skill development. |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ Some assessments are pen and paper, others involved the use of audio or video tapes. Most tests contain multiple choice problems. Each skill is measured by ability. Single or multiple skills assessments can be used. Six of the eight skills can be tested and scored electronically. Writing and listening must be marked by hand.<br>♦ The process involves a systematic task analysis of individual jobs followed by an analysis of the most important skills in a job. Skill levels are then identified (e.g., what level of skill must the worker demonstrate in order to be considered competent). |

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Work Keys (ACCC service) continued...

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| 8. People involved<br><br>• for each step<br>• qualifications<br>• time and cost<br>• client's staff<br>• training | • Work Keys staff must facilitate the development of job profiles and implement assessments. |
| 9. Time<br><br>• for each step<br>• turn-around time for results | • One test is administered for each skill area being measured. Assessments take between 40 - 80 minutes each. Job Profiles take approximately one day of staff time to develop.<br>• There is an option of overnight scoring. |
| 10. Costs<br><br>• licensing fees<br>• initial or annual fees<br>• cost for each step<br>• cost per individual assessed<br>• economies of scale<br>• associated client costs<br>• customization costs | • Cost per job profiled ranges from $1,500 to $3,000 CAN. There are no in-house training costs as service centre staff are responsible for profiling process and assessments. Skill Assessment costs range between $15.00 to $45.00 per skill assessed. Prices vary depending on the skills being measured and the turnaround time. For one person to be assessed for all 8 skills would cost approximately $280.00. Prices are set by individual service centres. |

## 6. Essential Skills Profile (HRDC)

*Type of **service**:* Job Skills Profiling Tool
*Date reviewed:* March 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br><br>♦ nature of the skills<br>♦ type of work skills<br>♦ levels assessed<br>♦ nature of assessment | ♦ Employability skills: Reading text; use of documents; writing; numeracy; oral communication; thinking skills; working with others; computer use; ability to learn; job physical & attitudinal requirements<br>♦ Levels assessed: The rating scale is descriptive for each skill and varies depending on the skill. For example, a rating for the type of text reading required in a job would be "relatively short texts; complex text to locate a single piece of information; choose and integrate information from a variety of sources; integrate and synthesize information; interpret dense and complex text.<br>♦ The profiles are developed through a series of structured interviews with incumbents and results are verified with job experts. |
| 2. Producer/supplier<br><br>♦ head office<br>♦ organizational history<br>♦ credibility<br>♦ information/service available | ♦ The job profiling process was developed by the Ministry of Human Resources Development Canada for use in the Canadian labour market. At present, there is no mechanism for accessing professionals who can provide the service to consumers. As such, there are no marketing materials available.<br>♦ A series of job profiles will be made available on HRDC's website. Jobs profiled will be those that are entry-level occupations at skill levels C and D in the NOC. (NOC is a taxonomy of occupations in Canada and contains 25, 000 titles) |
| 3. Intended consumer<br><br>♦ user group<br>♦ underlying assumptions | ♦ Consumers would include any type of organization, including labour, business, and government.<br>♦ The skills profiled are based on the Conference Board of Canada's basic employability skills and on those used in the International Adult Literacy Survey (Statistics Canada).<br>♦ Individual job incumbents are involved in identifying the skill requirements of their jobs. In addition, line managers provide feedback on reviews. There are also job experts (non-incumbents but individuals who have performed the job in the past) who review profiles to confirm skill requirements identified by workers. |

Essential Skills Profile (HRDC service) continued ...

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| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ nature of involvement<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ This is not a resident product or service unless an individual in the company becomes trained in how to implement the job profiling process. HRDC does have a training program in how to do the job profiles but there is currently no information available as to when the training is being offered.<br>♦ The method itself uses non-technical language and is adaptable to any job. The process can also be used to identify the technical skill requirements of a job, which could be added to the basic skills profile of a position.<br>♦ While the process provides a job profile of the supporting skills required to do a job, it does not provide any information as to a workers current skill level in relation to the job profile. It would therefore have to be coupled with other tools to determine what training strategies would be required for a worker or to assess an individual worker's employability. |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ The job profiling process is intended for non-professional positions.<br>♦ The process does not target any particular population, as it focuses on the job and not the person doing the job.<br>♦ The process is useful in identifying occupational basic skills across a trade, job cluster or occupational category. It can also be used to benchmark occupational standards. |
| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ The process is relevant to the Canadian labour market as it focuses on basic employability skills.<br>♦ Tools are under development, so it is likely to be very current when available. |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ Job profiles are developed using a series of individual structured interviews with job incumbents. There are no special equipment requirements.<br>♦ Trained professionals review company documents prior to holding interviews with key staff to determine the level and type of text reading required in a job. The process may also include job site tours.<br>♦ Once the interviews are complete, a validation process (focus groups of recognized industry experts) is sometimes used to confirm the data. |

Essential Skills Profile (HRDC service) continued ...

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|---|---|
| 8. People involved<br><br>• for each step<br>• qualifications<br>• time and cost<br>• client's staff<br>• training | • Individual workers, management and outside job experts are all involved.<br>• Training is required in how to implement the job profiling process. |
| 9. Time<br><br>• for each step<br>• turn-around time for results | • Time requirements vary depending on the number of jobs being profiled. Generally, a single interview takes one hour. There would be more than one interview to develop a job profile. The interviews could be done in a group.<br>• Once a profile is completed, the interviewer requires time to synthesize the information. This is not done electronically and it can therefore take some time to receive the final version of the job profiles. |
| 10. Costs<br><br>• licensing fees<br>• initial or annual fees<br>• cost for each step<br>• cost per individual assessed<br>• economies of scale<br>• associated client costs<br>• customization costs | • There is currently no information available as to cost. |

## 7. Workplace Basic Skills Inventory
## (Comprehensive Adult Student Assessment System - CASAS)

*Type of **service**:* Job Skills Profiling Tool[9]
*Date reviewed:* February 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br>◆ nature of the skills<br>◆ type of work skills<br>◆ levels assessed<br>◆ nature of assessment | ◆ All basic employability skills, based on SCANS, and non-technical skills<br>◆ Levels: Pre-literacy; Beginning Basic Skills; Intermediate Basic Skills; Adult Secondary; Advanced Adult Secondary. Not linked to a grade level.<br>◆ The skills identified in the job profiles describe the skills necessary in a job. |
| 2. Producer/supplier<br>◆ head office<br>◆ organizational history<br>◆ credibility<br>◆ information/service available | ◆ CASAS, 8910 Clairemont Mesa Boulevard, San Diego, California, 92123-1104.<br>◆ Ph: (619) 292-2900<br>◆ Fax: (619) 292-2910<br>◆ Web: http://www.casas.org<br>◆ CASAS backed by 18+ years of research & development. WLS is validated by US Dept. of Education and conforms to standards set by the American Psychological Assoc. & the National Council on Measurement in Education.<br>◆ No demonstration package is available.<br>◆ Customer Service (800) 255-1036, ext. 310 |
| 3. Intended consumer<br>◆ user group<br>◆ underlying assumptions | ◆ User groups include industry as well as educators designing programs for employment preparation, school-to-work, and workforce development programs.<br>◆ Systems are adaptable and can be used in any size or type of organization.<br>◆ Job profiles are developed through a series of interviews as well as a review of company documents to identify the type of reading used in a job. |

[9] Can be used with the Workplace Learning Systems product (#8; pg. 37) to conduct a skills gap analysis.

Workplace Basic Skills Inventory (CASAS service) continued...

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|---|---|
| 4. Nature of the P/S<br>◆ product (resident) or service<br>◆ nature of customer involvement<br>◆ final results<br>◆ user-friendliness<br>◆ adaptability | ◆ Employer undergoes implementation training in how to develop profiles. As such, it is a resident process. CASAS professionals provide on-site training to client's staff in how to develop the profiles.<br>◆ Profiles are simple to read as they list skills needed in a job. Can be used with other CASAS product – Workplace Learning Systems – to conduct skills gap analysis.<br>◆ Results cannot be aggregated, as this is not a computer application.<br>◆ Information gathered belongs to the client.<br>◆ Linkages: the system provides a guide to assist trainers in locating U. S. based products and services. The guide lists over 1,000 support materials. |
| 5. Target individual<br>◆ in general<br>◆ special populations<br>◆ age appeal | ◆ Job profiling process targets entry-level jobs up through technical positions. It has not been designed for jobs that require university degrees, or upper level management positions. |
| 6. Content<br>◆ relevance to Canada<br>◆ labour market<br>◆ currency | ◆ Skills profiled are basic employability; therefore, there is no problem with relevance to Canadian labour market. |
| 7. Format of P/S<br>◆ type<br>◆ process<br>◆ equipment | ◆ Job profiling process involves interviewing staff in a consensus process, to have them identify the skills required in individual jobs. |
| 8. People involved<br>◆ for each step<br>◆ qualifications<br>◆ time and cost<br>◆ client's staff<br>◆ training | ◆ CASAS professionals and trained client staff review the results of interviews to develop the job profile.<br>◆ CASAS professionals review company documents to identify the type of reading skills required in a job.<br>◆ Training costs are $500 (USD) per person or $6,000 (UDS) for 10-15 people, and includes training in how to use the skill assessment model. |

Workplace Basic Skills Inventory (CASAS service) continued...

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|---|---|
| 9. Time<br><br>♦ for each step<br>♦ turn-around time for results | ♦ There is no information as to the cost and time needed to develop individual profiles.<br>♦ The time required to do a job profile depends on company needs.<br>♦ Turn around time for results in immediate. |
| 10. Costs<br><br>♦ licensing fees<br>♦ initial or annual fees<br>♦ cost for each step<br>♦ cost per individual assessed<br>♦ economies of scale<br>♦ associated client costs<br>♦ customization costs | ♦ No information available. |

## 8. Workforce Learning Systems (WLS) and Employability Competency System (ECS) (Comprehensive Adult Student Assessment System - CASAS)

*Type of **service**:* Individual Skills Assessment Process
*Date reviewed:* February 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br>• nature of the skills<br>• type of work skills<br>• levels assessed<br>• nature of assessment | • All basic employability skills, and non-technical skills, based on SCANS.<br>• Levels: Pre-literacy; Beginning Basic Skills; Intermediate Basic Skills; Adult Secondary; Advanced Adult Secondary.<br>• Correlated to number of years of schooling completed as well as to corresponding skill level descriptors.<br>• Assessments are performance based and measure an employee's skill in each area. |
| 2. Producer/supplier<br>• head office<br>• organizational history<br>• credibility<br>• information/service available | • CASAS, 8910 Clairemont Mesa Boulevard, San Diego, California, 92123-1104.<br>  • Ph: (619) 292-2900<br>  • Fax: (619) 292-2910<br>  • Web: http://www.casas.org<br>• CASAS backed by 18+ years of research & development. WLS is validated by US Dept. of Education and conforms to standards set by the American Psychological Association and the National Council on Measurement in Education.<br>• A demonstration package is available for a fee.<br>• Customer Service (1-800) 255-1036, ext. 310 |
| 3. Intended consumer<br>• user group<br>• underlying assumptions | • This service is intended for use by educators, workforce development and employment preparation staff, as well as school-to-work programs.<br>• Systems are adaptable and can be used in any size or type of organization. |

Workforce Learning Systems (CASAS service) continued...

| | |
|---|---|
| 4. Nature of the P/S<br><br>♦ product (resident) or service<br>♦ nature of customer involvement<br>♦ final results<br>♦ user-friendliness<br>♦ adaptability | ♦ Both systems are resident products. Employer takes implementation training. Most assessments are pen and paper. Test booklets can be re-used.<br>♦ Results are simple to use; a performance level, as described in Part 1 above, is assigned to a workers' skill level based on performance on a test. Competency attainment is also reported for each learner. Trainers can monitor learner progress by competency and improved skill levels.<br>♦ Terminology used is simple and easy to understand.<br>♦ Results can be aggregated using the computerized database system software -TOPS pro.<br>♦ Information gathered belongs to the client.<br>♦ Linkages: the system provides a guide to assist trainers in locating U. S. based products & services. The guide lists over 1,000 support materials. |
| 5. Target individual<br><br>♦ in general<br>♦ special populations<br>♦ age appeal | ♦ Neither product targets any population in particular.<br>♦ The learning scale provides accommodation for disabled employees in compliance with the U.S. Disabilities Act.<br>♦ Target groups include youth, adults and individuals with low literacy levels as well as ESL.<br>♦ An initial locator test is used to determine placement. Targeted assessments can be used for diagnosis and development of learning plans. Additional assessment tests can be given to measure progress and guide the learning process. |
| 6. Content<br><br>♦ relevance to Canada<br>♦ labour market<br>♦ currency | ♦ Skills assessed are basic employability; therefore, there is no problem with relevance to Canadian labour market. |
| 7. Format of P/S<br><br>♦ type<br>♦ process<br>♦ equipment | ♦ Most assessments are a series of pen and paper tests that are scored and provide a measure of an employee's performance.<br>♦ Process is individualized.<br>♦ Equipment required for computer-based applications: 486, PC with Windows and 3 megabytes of RAM |

Workforce Learning Systems (CASAS) continued...

| | |
|---|---|
| 8. People involved<br><br>• for each step<br>• qualifications<br>• time and cost<br>• client's staff<br>• training | • CASAS professionals provide the skills assessment tools and templates for scoring. They will also train staff members in how to administer tests. ECS training is $75 per person.<br>• CASAS staff, who provide implementation training, have many years of experience in adult education as well as specific experience in working with industry in the field of human resources development.<br>• WLS training is $500 per person or $6,000 + expenses for 10 - 15 employees. This includes training in the job profiling process. |
| 9. Time<br><br>• for each step<br>• turn-around time for result | • Individual assessments can take from 40 minutes upward, depending on assessment. Cost varies from $US2-3 per test.<br>• Scoring is done on-site so results can be immediate. |
| 10. Costs<br><br>• licensing fees<br>• initial or annual fees<br>• cost for each step<br>• cost per individual assessed<br>• economies of scale<br>• associated client costs<br>• customization costs | • There are no licensing or annual fees. See training costs above.<br>• The program has been designed to be self-sustaining. An initial investment in training time (3 days for WLS and 1 for ECS) and resources provides a workplace learning program that may be administered into the future. |

## 9. Workplace Success Skills (Learning Resources Inc.)

*Type of **product**:* Skill Assessment for Individuals
*Date reviewed:* March 1998

| Information Criteria | Information Acquired |
|---|---|
| 1. Skills assessed<br><br>• nature of the skills<br>• type of work skills<br>• levels assessed<br>• nature of assessment | • Employability skills only: interacting with others; listening; trainability; structuring work activities; graphs and charts.<br>• Based on the US SCANS skills.<br>• The system provides a narrative description of an individual's skill level in different employability areas. It identifies when an individual's skills are acceptable, in relation to levels in similar job situations, and when developmental work is needed.<br>• There is no scale associated with skill levels but rather the system provides "probability of success" information on how the individual would do in various jobs.<br>• It assesses individuals observable behaviors using video clips. |
| 2. Producer/supplier<br><br>• head office<br>• organizational history<br>• credibility<br>• information/service available | • Learning Resources Inc.<br>700 Canal Street, Stamford, CT 06902-5921<br>  • Ph: (203) 637-5047<br>  • Fax: (203) 637-2786<br>  • E-mail: alesure@learning-resources.com<br>  • Web: http://www.learning-resources.com<br>• Access sample video and the complete list of skills by viewing: http://www.learning-resources.com/wss12.htm |
| 3. Intended consumer<br><br>• user group<br>• underlying assumptions | • Industry, labour, education, government.<br>• No limit to the size of organization. |

Workplace Success Skills (LRI product) continued...

| | |
|---|---|
| 4. Nature of the P/S<br><br>• product (resident) or service<br>• nature of consumer involvement<br>• final results<br>• user-friendliness<br>• adaptability | • This is a resident product as client can purchase the video for future use.<br>• There is very little administrative work required to run the program as it is video based and does not include a computer based tracking system.<br>• Final reports are available upon completion of assessment. The report , using non-technical language, describes how an individual performed on the assessment. Their answers to the questions in the vignettes are scored and suggestions for improvements are given.<br>• The assessment process complements programs such as CASAS and Work Keys.<br>• |
| 5. Target individual<br><br>• in general<br>• special populations<br>• age appeal | • Targeted to individuals who are not highly trained professionals.<br>• Languages: only available in English and Spanish |
| 6. Content<br><br>• relevance to Canada<br>• labour market<br>• currency | • The skills assessed can be relevant to the Canadian labour market, as they are employability skills.<br>• This product is not a living tool, i.e., it is not easily updated. Once a report is generated on an employee, there is no easy way of tracking their progress. |
| 7. Format of P/S<br><br>• type<br>• process<br>• equipment | • This is a video-based assessment designed to assess and document an individual's job-related skills and abilities. Individuals view video vignettes, observe situations and then respond to questions concerning actions and decisions relating to the vignettes.<br>• Required equipment: TV / VCR and computer with modem to receive feedback reports. |
| 8. People involved<br><br>• for each step<br>• qualifications<br>• time and cost<br>• client's staff<br>• training | • After purchasing the product, customer staff administer the system. Very little management time is required.<br>• No training is required to implement the system. |

Workplace Success Skills (LRI product) continued...

| | |
|---|---|
| 9. Time<br><br>♦ for each step<br>♦ turn-around time for results | ♦ Video viewing is 2.5 hours each, for all 5 modules.<br>♦ There is no information on the process for scoring assessment results. |
| 10. Costs<br><br>♦ licensing fees<br>♦ initial or annual fees<br>♦ cost for each step<br>♦ cost per individual assessed<br>♦ economies of scale<br>♦ associated client costs<br>♦ customization costs | ♦ Prices are on a sliding scale depending on the number of individuals assessed. |

## Observations and Conclusions

The researchers, with significant contributions from the Advisory Committee, offer the following observations and conclusions which resulted from the study.

- It is relatively easy to locate a large number of products and services related to skills assessments – those required for employment or those acquired by individuals. A search on the Internet using descriptors for the concepts of "assessment" and "employment skills," together with a selection of commercial catalogues and a literature review on the topic, resulted in approximately 75 products and services.

- It is relatively easy to reduce this number by simply asking for more information. The purpose of this project was to assist consumers of these products and services to make an informed choice; the basis of informed choice is information.

- It is difficult to make a choice between what appear to be similar products and services because, e.g.,:
  - the product/service descriptions all follow unique formats, i.e., the information provided is not in a comparable format;
  - different pricing structures;
  - different skills lists and levels are used; and
  - different labels and terminology are sometimes used for the same concepts.

- It is relatively easy to come up with a long list of information requirements but more difficult to acquire and classify the information into a usable format. Typically, it is impossible to gather all the information as set out by the "consumer's guide" for any product or service because it just isn't available. Asking questions, however, has prompted some providers and suppliers to think about information that they could/should make widely available.

- Trends in work skills analysis tools appear to be:
  - away from pen and paper to mediated processes, e.g., computers, videos
  - away from group processes to individualized assessments
  - towards more self-assessment and self-management
  - away from complex, multi-tool processes to integrated computerized systems
  - towards skills databases that are used in a variety of ways
  - towards very expensive and complex systems and away from less expensive tools that small, not-for-profit organizations can use.

- Before a consumer attempts to locate and differentiate between work skills analysis tools, the following key decision factors should be discussed:
  - What type and level of skills to concentrate on – e.g., basic employability skills, entry-level occupational skills, occupation-specific skills.
  - If there are resources – time, personnel, information -- available to make a fully informated decision.
  - The nature of the industry and its current skills development needs.
  - Whether a resident product or a consulting service is more suitable.
  - What human resources and equipment can be brought to the task.
  - What limitations must be considered, e.g., time and money.

- A consumer's guide to choosing between tools can be used as new products and services become available – which is becoming common with the current emphasis on training and workforce development. It can also be used by producers and developers as they design and market new products.

The consumer's guide will be made available by the Forestry Continuing Studies Network with the intention of providing consumers with the questions to ask when reviewing work skills analysis tools. Further research will be required to see if this has real utility and if not, what modifications are necessary.

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## Appendix A

## Project Advisory Committee

| Name | Organization |
|---|---|
| Tom Rankin | BC Forestry Continuing Studies Network (Kamloops)<br>Project Manager |
| Kim Cholette | BC Forestry Continuing Studies Network |
| Leslie Anderson | Forest Renewal BC, Victoria |
| Tom Hedekar | BC Forestry Continuing Studies Network (Nanaimo) |
| Dawn McKay | BC Ministry of Education, Skills and Training |
| Jim Lippert | BC Construction Industry Skills Improvement Council |
| Maureen Wright | Pacific Rim Institute of Tourism |
| Judy Lynn Archer | Labour Market and Career Information Association |
| Geoff Dean | Kwantlen University College |
| Doug Daniels | Canadian Forest Products Ltd. |

## Appendix B

## Sample Skills Lists

◆ The Conference Board of Canada Employability Skills Profile

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### Employability Skills Profile:
### Critical Skills Required of the Canadian Workforce

**ACADEMIC SKILLS**

Those skills which provide the basic foundation to get, keep and progress on a job and to achieve the best results.

Canadian employers need a person who can:

**Communicate**

- Understand and speak the languages in which business is conducted
- Listen to, understand and learn
- Read, comprehend and use written materials, including graphs, charts and displays
- Write effectively in the languages in which business is conducted

**Think**

- Think critically and act logically to evaluate situations, solve problems and make decisions
- Understand and solve problems involving mathematics and use the results
- Use technology, instruments, tools and information systems effectively
- Access and apply specialized knowledge from various fields (e.g. skilled trades, technology, physical sciences, arts and social sciences)

**Learn**

- Continue to learn for life

## PERSONAL MANAGEMENT SKILLS

The combination of skills, attitudes and behaviours required to get, keep and progress on a job and to achieve the best results.

Canadian employers need a person who can demonstrate:

**Positive Attitudes and Behaviours**

- Self-esteem and confidence
- Honesty, integrity and personal ethics
- A positive attitude toward learning, growth and personal health
- Initiative, energy and persistence to get the job done

**Responsibility**

- The ability to set goals and priorities in work and personal life
- The ability to plan and manage time, money and other resources to achieve goals
- Accountability for actions taken

**Adaptability**

- A positive attitude toward change
- Recognition of, and respect for, people's diversity and individual differences

## TEAMWORK SKILLS

Those skills needed to work with others on a job and to achieve the best results.

Canadian employers need a person who can:

**Work with Others**

- Understand and contribute to the organization's goals
- Understand and work within the culture of the group
- Plan and make decisions with others and support the outcomes
- Respect the thoughts and opinions of others in the group
- Exercise "give and take" to achieve group results
- Seek a team approach as appropriate
- Lead when appropriate, mobilizing the group for high performance

◆ From the US Secretary of Labour's Commission on Achieving Necessary Skills, U.S. Depart.nent of Labour pamphlet: *What Work Requires of Schools: A SCANS Report for America 2000 - Executive Summary*, the following:

**The SCANS List**

FIVE COMPETENCIES

1. **Resources:** Identifies, organizes, plans and allocates resources

   1.1 *Time* - selects goal-relevant activities, ranks them, allocates time and prepares and follows schedules.

   1.2 *Money* - uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives

   1.3 *Material and Facilities* - Acquires, stores, allocates, and uses materials or space efficiently

   1.4 *Human Resources* - Assesses skills and distributes work accordingly, evaluates performance and provides feedback

2. **Interpersonal:** Works with others

   2.1 *Participates as Member of a Team* - contributes to group effort

   2.2 *Teaches Others New Skills*

   2.3 *Serves Clients/Customers* - works to satisfy customers' expectations

   2.4 *Exercises Leadership* - communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies

   2.5 *Negotiates* - works toward agreements involving exchange of resources, resolves divergent interests

   2.6 *Works with Diversity* - works well with men and women from diverse backgrounds

3. **Information:** Acquires and uses information

   3.1 *Acquires and Evaluates Information*

   3.2 *Organizes and Maintains Information*

   3.3 *Interprets and Communicates Information*

   3.4 *Uses Computers to Process Information*

4. **Systems:** Understands complex inter-relationships

   4.1 *Understands Systems* - knows how social, organizational, and technological systems work and operates effectively with them

   4.2 *Monitors and Corrects Performance* - distinguishes trends, predicts impacts on system operations, diagnoses systems' performance and corrects malfunctions

   4.3 Improves or Designs Systems - suggests modifications to existing systems and develops new or alternative systems to improve performance

5. **Technology:** Works with a variety of technology

   5.1 *Selects Technology* - chooses procedures, tools or equipment including computers and related technologies

   5.2 *Applies Technology to Task* - understands overall intent and proper procedures for setup and operation of equipment

   5.3 *Maintains and Troubleshoots Equipment* - prevents, identifies, or solves problems with equipment, including computers and other technologies

A THREE-PART FOUNDATION

1. **Basic Skills:** Reads, writes, performs arithmetic and mathematical operations, listens and speaks

   1.1 *Reading* - locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules

   1.2 *Writing* - communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts

   1.3 *Arithmetic/Mathematics* - performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques

   1.4 *Listening* - receives, attends to, interprets, and responds to verbal messages and other cues

   1.5 *Speaking* - organizes ideas and communicates orally

2. **Thinking Skills:** Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons

   2.1 *Creative Thinking* - generates new ideas

   2.2 *Decision Making* - specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative

   2.3 *Problem Solving* - recognizes problems and devises and implements plan of action

   2.4 *Seeing Things in the Mind's Eye* - organizes and processes symbols, pictures, graphs, objects and other information

   2.5 *Knowing How to Learn* - uses efficient learning techniques to acquire and apply new knowledge and skills

   2.6 *Reasoning* - discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

3. **Personal Qualities:** Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

   3.1 Responsibility - exerts a high level of effort and perseveres towards goal attainment

   3.2 *Self-Esteem* - believes in own self-worth and maintains a positive view of self

   3.3 *Sociability* - demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings

   3.4 *Self-Management* - assesses self accurately, sets personal goals, monitors progress, and exhibits self-control

   3.5 *Integrity/Honesty* - chooses ethical course of action

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- The Workability Handbook, Alberta Career Development and Employment. Available from Information Development and Marketing, Province of Alberta

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**Workability Attitudes and Skills**

I. WORKABILITY ATTITUDES

- Dependability: showing that you are a reliable worker who does good work.
- Integrity/honesty: acting in an ethical way.
- Concern for quality: striving for constant improvement.
- Independence and initiative: seeing what needs to be done, doing it, and being responsible for the results.
- Commitment to an employer/work: showing effort and commitment to a project or an employer.
- Risk-taking: attempting new methods and approaches that you think you can handle, even though you are not sure.
- Courtesy: showing a basic level of caring, concern and respect for those around you.

II. UNIVERSAL WORKABILITY SKILLS

- Adaptability Skills: skills you use to make changes in your life in order to reach your goals.
- Problem-Solving/Decision-Making Skills: skills you can use to identify a problem or issue, know you can respond to it, and then decide what response is best for you.
- Communication Skills: verbal, written and body language skills that let other people know what you are thinking, want to do, or want others to do.
- Time Management Skills: using time in a satisfying and productive way.
- Appearance and Dress Skills: presenting yourself in the workplace in a way that makes sense for the type of job and for safety.
- Negotiation Skills: working to get what you want from someone in a way that is "win-win" for both of you.
- Work and Lifestyle Balance: sorting and managing your personal and work responsibilities in a manner that is right for you.

- Overcoming Addictions: skills for recognizing and dealing with things you do over and over that you cannot control.
- Skills for Overcoming Unfairness: dealing with the fact that sometimes people may treat you unfairly based on who they think you are, not who you really are.
- Stress Management Skills: skills to cope with all the demands and pressures in your life.
- Money Management Skills: help you live on the money you have or earn.
- Building Relationships: developing and participating in relationships with family, friends, acquaintances, contacts and others who will help you and whom you are willing to help.
- Information Skills: skills required to find and understand information relevant to reaching your vision, doing your work, or living life the way you want to.
- Value Management Skills: acting on what is most important to you and others.
- Basic Skills: the abilities to read, write and use numbers.
- Work-specific Skills: skills that an employer or client wants workers to have before hiring. These skills go beyond basic skills and are directly related to the work.
- Gaining Experience: a way of developing your skills and showing employers that you are dependable and can do the job.
- Working with others/Collaboration Skills: skills you require to co-operate with others within or outside the workplace leading to a shared result.
- Understanding Organizational Operations: knowing how organizations work and why they function the way they do.
- Developing Personal Strengths: building on your knowledge, skills, interests and attitudes to develop new skills and improve other ones.
- Building Toward a Vision: setting out a vision for your life and specific short-term goals/experiences that move you closer to your vision.
- Understanding the Work Role: knowing the work duties, role qualifications, and how to apply for work that interests you.
- Understanding/Preparing Marketing Documentation: present your knowledge, skills, attitudes and experience in written form to employers/clients.
- Work Interview Skills: the ability to present your knowledge, skills and attitudes to an employer/contractor during a formal interview.

◆ Debling, G., and Behrman, B. (1996). *Employability skills for British Columbia: The report of a project sponsored by HRDC and the BCLFDB.* Vancouver: BCIT.

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**Employability Skills for British Columbia**[10]

(1) *Knowing the business* - Act with "common sense" in the work context. This means acting in a way that is sensitive and responsive to customer expectations and needs, dealing effectively with customers; talking and writing in a way that is relevant to the organization through knowledge of the business and its activities; identifying with the company.

(2) *Exploiting information technology* - Learn new uses of information technology.

(3) *Behaving appropriately* - Act ethically and with integrity; be productive, co-operative, accountable, responsible, flexible and positive (especially about change).

(4) *Speaking and listening* - Receive, comprehend and interpret complex instructions; talk with, provide to and seek and clarify information from co-workers, customers, clients and those in authority, in person and by telephone.

(5) *Writing* - Write clearly, concisely and to the point, consistently conforming to grammatical conventions and using correct spelling.

(6) *Maintaining personal standards* - Be concerned with personal well-being; maintain standards of hygiene and dress which conform with an organization's expectations.

(7) *Handling numbers* - Extract and record numerical data and carry out calculations with high levels of accuracy, involving addition, subtraction, multiplication, division and the use of percentages.

(8) *Responding to problems* - Be alert to what is happening at work and be able to identify, investigate, and evaluate potential and actual problems; be able to report them concisely and clearly, orally and in writing.

(9) *Continually learning* - Take responsibility for own learning, learn through working with others, from manuals and from mistakes.

(10) *Planning* - Manage the use of time; master, plan and undertake a number of activities which are inter-related or overlap in time.

(11) *Working in teams* - Work within and contribute to the effectiveness of a team, respecting differences; take responsibility and be willing to make decisions.

(12) *Using equipment* - Set up and operate equipment that can require selection from options or different settings.

(13) *Reading* - Read to extract information and interpret instructions from notes and prose.

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[10] **Skills Most Sought by Recruiters in Small- and Medium-sized Organizations**

◆ Carnevale, Anthony P., Gainer, Leila J., and Meltzer, Ann S. (1990). *Workplace basics: The essential skills employers want.* San Francisco: Jossey-Bass.

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**Essential Skills Employers Want**

1. *Learning how to learn*
2. *Basic competency skills*
   - reading
   - writing
   - computation
3. *Communication skills*
   - speaking
   - listening
4. *Adaptability skills*
   - resourcefulness
   - creative thinking
5. *Developmental skills*
   - self-esteem
   - motivation and goal setting
   - career development
6. *Group effectiveness skills*
   - interpersonal skills
   - teamwork
   - negotiation
7. *Influencing skills*
   - understanding organizational culture
   - sharing leadership

◆ Transferable Skills Inventory prepared by Human Resources Development Canada (1996), from the Take Charge - Self-Help Series, #2: Looking at Yourself.

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**Transferable Skills Inventory**

ANALYZING situations or data

ASSEMBLING equipment or information

CALCULATING mathematical computations or risk assessment

COACHING, guiding or tutoring

COMPILING data or facts

CONSTRUCTING objects or buildings

COORDINATING activities or events

CORRESPONDING, answering or initiating

COUNSELLING

CREATING, artistic creations, new ideas or inventions

DECIDING alternatives, resources or materials

DELEGATING tasks or responsibilities

DESIGNING products or systems

DISPLAYING ideas, products or equipment

EDITING newspapers or magazines

ESTIMATING costs, income or physical space

EVALUATING performance, programs, processes or events

FUNDRAISING one-to-one or through media

GROUP FACILITATING, managing group interactions

HANDLING COMPLAINTS, parent's, client's, customer's or citizen's

INSPECTING OR EXAMINING physical objects, financial statements or through test administration

INTERPRETING data, legal, medical or technical terminology or other language

INTERVIEWING

INVESTIGATING private information, underlying causes or sequence of events

MAKING LAYOUTS for printed media or public displays

MEETING THE PUBLIC, receptionist, agency or product representative, salesperson, personal or public servant or tour co-ordinator

MONITORING progress of people, processes or equipment

MOTIVATING

OBSERVING physical circumstances, human behaviours or changing situations

OPERATING equipment, machines or vehicles

ORGANIZING people, information or events

PLANNING, budgeting, goal setting or scheduling

PROGRAMMING equipment or activities

PROMOTING one-to-one or through media

RECORDING numerical or scientific data

RECORD KEEPING, logs, files or timesheets

REPAIRING equipment, vehicles, furniture or accessories

RESEARCHING, obtaining information from libraries, surveys or physical data

SELLING ideas, products or policies

SERVING a product or an individual

SKETCHING pictures, diagrams or charts

SPEAKING in public, to groups or via electronic media

SUPERVISING people or processes

TEACHING, formal or informal

TIMING, organizing time or events

TROUBLESHOOTING equipment or situations

UPDATING information or records

USING INSTRUMENTS, engineering, medical or scientific

WRITING, creative or technical

## Appendix C

## Initial List of Work Skills Analysis Tools

FuturEd reviewed preliminary information on approximately 75 products and services advertised on the Internet. Of these, the 34 listed below seemed to be useful for analyzing required and acquired work-related skills. The nine listed first are reviewed in full detail in the body of this report according to the framework outlined in the Consumer's Guide. Insufficient information was received from vendors of the remaining 25 for them to be reviewed in such detail. No judgement of quality is implied by inclusion or lack of inclusion in this report.

1. Advance Skill Command (AES)
2. Portfolio Builder and Assessment System (JMJ Group)
3. SkillScape Skills Management (SSMS)
4. SkillView Power Builder Skill Inventory (ST)
5. Work Keys (ACT/ACCC)
6. Essential Skills Profile (HRDC)
7. Workplace Basic Skills Inventory (CASAS)
8. Workplace Learning Systems (CASAS)
9. Workplace Success Skills (LRI)
10. Job Profiling System (AES)
11. Skill Development Process (AES)
12. Workplace Learning Skills
13. Workforce Learning Systems (CASAS)
14. WORKING
15. Professional Development Generic Skills Profile
16. INTER*ED*
17. PACE Learning Systems
18. Electronic Portfolio Assessment
19. Human Job Analysis
20. Personnel Test (Wonderlic)
21. Basic Skills Test (Wonderlic)
22. Employee Reliability Inventory (Wonderlic)
23. NOCTI Technical Skills test

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24. Work Profiling System
25. Profiling for Excellence
    - Personal Profile System
    - Personal Development Profile System
26. Ability Profile
27. LISSEN Skills Assessment System (Locate Individual Strategic Skills & Education Needs)
28. QRI Skills Roster
29. Basic Skills Assessment (Santa Ana)
30. Transferable Skills Assessment (Santa Ana)
31. Taking Stock
32. Employability Skills Inventory (Brigance)
33. Comprehensive Personality Profile (Brigance)
34. Position Classification Inventory (Brigance)